

# ACNE INDURATA; ITS TREATMENT.<sup>1</sup>

BY

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LOCAL treatment may remove acne, and in a sense the acne may be said to be cured. Once removed, however, does not signify a permanent freedom. On the other hand, constitutional treatment alone is rarely capable of causing a disappearance of acne papules and pustules, although, when removed by local means, it may and will frequently prevent a return of the eruption. In no other class of acne cases is the futility of internal medication alone so forcibly illustrated as in the indurated variety. The patient may be purged, toned up, or subjected to a course of alteratives, and yet the eruption remains about the same, or at the best is only slightly modified. To remove the existing lesions, local treatment is always necessary, and even then the eruption may at times prove exceedingly obstinate. In ordinary acne various plans of local treatment are equally efficacious, and simple in character. This cannot be said of acne indurata. At times it will yield somewhat to lotion and ointments, but in the greater number of cases, and in fact in nearly all, either operative measures will be called in requisition, or strong applications be found necessary.

There are several of the so-called operative methods, although they

<sup>1</sup> Read before the Northern Medical Association of Philadelphia.

are essentially the same, or at the most modifications. Standing first is scarification by puncture. This is a favorite plan and the one most generally practised. Each lesion is punctured to a sufficient depth with an instrument specially made for this purpose, or with a thumb lancet, or what I have found as useful, and which is certainly more convenient, the sharp-pointed tenotome. Every pocket case contains this and hence it is always in readiness. If the acne indurations are somewhat flat and broad, several punctures may be made in each at the one sitting. Every lesion should be so treated, varying from a single puncture in the small induration to several in those of a larger size. In these cases there seems to be very little tendency to pus evolution. The punctures, therefore, rarely liberate any pus, but are usually followed by some hemorrhage, which should in all cases be encouraged. The application of hot water, by means of a sponge or piece of flannel, favors the bleeding, and at the same time allays the irritation produced by the scarifications. It is a valuable adjuvant of the treatment and should when possible be employed. After four or five days the scarifications should be repeated. One or two scarifications will generally suffice for the smaller lesions; the larger indurations may require several repetitions. If the eruption is copious, it is best that only a proportion of the lesions be punctured at one visit, unless the patient gives himself over entirely to the treatment; in which case all may be operated on at the one time, and thus shorten somewhat the period of treatment. During the time between the scarifications, a stimulant lotion or ointment may be used on the parts not operated upon, and in cases in which the scarifications cause but little irritation, may be applied to the whole face. Although such a lotion or ointment has only a trifling influence on the nodules themselves, it may serve to stimulate the glands as yet but slightly involved to a healthy action, and prevent to a certain extent the formation of new lesions. An excellent stimulant to the glands, and one that prevents the hardening of the sebaceous plugs, or when such has taken place, softens them, is hot water. It should be applied freely at bed-time for several minutes. It is invaluable in the treatment of all forms of acne. To be efficient, the water should be as hot as can be borne and applied from five to ten minutes, or even longer. Lotions or ointments if used should be applied in the evenings, after the hot-water applications. In the greater number of cases of acne indurata the plan above detailed will be adequate for a removal of the eruption. The length of time required will vary according to the conditions present. The milder varieties yield, as already stated, after a few scarifications; others may require prolonged treatment. The scarifications to be efficient should be thorough and should penetrate the full depth of the nodules.

Of the lotions and ointments that may be advised in conjunction with



the operative measures, or at least during the intervals, the following will be found most useful:  $\mathcal{R}$  Sulphate of zinc, Sulphuret of potassium, each one-half to two drachms; Water, four ounces.  $\mathcal{R}$  Corrosive sublimate, two to four grains; Alcohol, one fluidounce; Water, three ounces.  $\mathcal{R}$  Washed sulphur, one to four drachms; Ether, four fluidrachms; Alcohol, three and a half fluidounces.  $\mathcal{R}$  One to four drachms of precipitated sulphur; Benzoated lard, one ounce.  $\mathcal{R}$  Sulphuret of potassium, thirty grains to two drachms; Benzoated lard or cosmoline, one ounce. For persons with sensitive skin the milder strength should be ordered; others may require the strongest. There are other well-known lotions and ointments, many of which are of unquestionable value, but the formulæ just given answer all the requirements.

Another method of treating this form of acne is a modification of the above. The scarifications are practised the same as already described, but after the bleeding has ceased, each papule and pustule at the point of puncture is touched with dilute acid nitrate of mercury, one part of the nitrate to from five to eight parts of water. Excepting the hot-water applications, adjuvant measures are not employed, being in a degree forbidden by the irritation caused by the acid nitrate. Frequently the irritation is slight, and in these instances the use of an ointment or lotion may be advised as in the former plan of treatment. The scarifications and the subsequent application of the acid nitrate are, however, usually sufficient without the employment of any other measure. If the irritation is marked, then an ointment of oxide of zinc, cold cream, or vaseline may be ordered. The acid nitrate should never be used undiluted, as scarring may occasionally result. It is far safer, and equally efficacious, to use it in the strength of one part to eight of water. In this strength its action is sufficient for a therapeutic effect, and the unpleasant sequence of scarring will not ensue.

Another modification of the method by puncturing is similar to the last, except that carbolic acid is used instead of the acid nitrate. I have always used the ninety-five-per-cent solution. Scars have never followed and the therapeutic result has been satisfactory. It is much superior to the acid nitrate of mercury, having all the latter's merits and none of its disadvantages; it is not so painful and the irritation is less, while the effect is always more striking. The best method of applying it, as may also be advised with the acid nitrate of mercury, is with an ordinary matchstick, made somewhat tapering at the end. The point should not be small enough to penetrate the puncture, just sufficiently small to touch it superficially. A lotion or ointment may be used in the intervals of active treatment if not contraindicated. The punctures and subsequent application of carbolic acid should be made about every fifth day, the

same as in the treatment with simple scarification, and in that with scarifications and acid nitrate of mercury.

These three methods, if they may be so-called, will generally be found sufficient to remove the lesions of indurated acne. If simple scarifications are not adequate, the application of dilute acid nitrate of mercury or of carbolic acid may be superadded.

In those cases in which the acne indurations are capped with a small pustular centre, as in all other cases, another operative method is sometimes employed. It is that in which the curette is employed in place of the scarifying knife. The tops of the lesions are thoroughly scraped out, and the case may go on without any further measure, or it may be necessary to repeat the operation, although this is seldom required. The acid nitrate of mercury or the carbolic acid may in some instances be applied as in the method by puncture; the scrapings are, however, usually sufficient without anything else superadded. There is much more irritation caused by the scraping than by puncturing, and in cases so treated it is advisable to prescribe a mild soothing ointment. This method, moreover, as may readily be understood, produces during the time of treatment more disfigurement, and patients will not so willingly submit to it on this account alone. It is besides much more painful and terrifying than puncturing, although it must be admitted that it is thoroughly effective.

Another operative method which may, upon extended trial, commend itself is electrolysis. So far I have only had a few opportunities of trying this plan, but in these few instances the result was such as to warrant its employment in other cases. The needle, the same as used for the removal of superfluous hair or an ordinary sewing needle of small size, is attached to the negative pole of a galvanic battery, introduced deep into the lesion and the connection made by patient grasping the sponge of positive pole. The current should be continued a fraction of a minute, depending upon the amount of electrolytic action excited. The appearance of slight frothing at the point of insertion is evidence that the action has been sufficiently long. From five to fifteen cells of a recently charged battery are generally required; ten cells are most generally applicable. A great deal depends upon the amount of action excited, and the number of cells, as also the period of contact, should be gauged accordingly. Unfortunately this operation is painful, even more so than scarifications, although it is not so terrifying. The pain is not so severe, however, as to forbid its employment, and after a few sittings, a degree of tolerance is established.

Occasionally patients are seen who are alarmed by the sight of a knife and in whom even a needle causes more or less apprehension. Such persons positively object to all operative procedures, it matters not how trifling the operations themselves may be. In these cases other plans of



treatment must be adopted, although much slower and less satisfactory in their results. Time is usually wasted with the use of the ordinary lotions and ointments successfully prescribed for simple cases of acne, so that from the start resort should be had to strong applications. The three substances which in my hands have yielded the best results are, the acid nitrate of mercury, corrosive sublimate, and carbolic acid. These cause slight destruction of the acne surfaces and with the resulting dermatitis more or less exfoliation takes place, and if repeated, the lesions will gradually be made to disappear. The improvement is of course much slower than by the methods by scarification. The acid nitrate of mercury has been used in its undiluted state, and is still so employed, especially by English dermatologists. It may be done in some cases with good effect, but extreme care is necessary lest scarring results. It is far better to use it diluted with four or five parts of water, even if it requires a greater number of applications, and consequently a longer period of treatment. Here again I can testify to the equal efficacy of carbolic acid and its absolute freedom from unfortunate accidents, provided that only an amount of care that all such remedies demand, is exercised in its employment. The carbolic acid should be used pure or nearly so (95%). The applications should be made with an ordinary match-stick, somewhat rounded or pointed at the end. Any similar contrivance can of course be employed; a match-stick is always at hand and requires but little time for preparation, and after the sitting may be thrown away. The point should be broader than that used when scarification has preceded, as a greater surface is to be touched and acted upon. The application, as a rule, should be made every third or fourth day. If the irritation is marked, a soothing ointment should be prescribed. Applications of hot water should be made at bed-time, as in the former methods. Corrosive sublimate, if employed, should be used in solution, and applied in the same manner as the acid nitrate and carbolic acid. Instead of making an application every few days, however, it should be applied several times during the day, and after forty-eight to seventy-two hours, omitted for a day or so. Considerable exfoliation follows its use, and in this way mainly improvement is effected. It should be applied only to the lesions, and care should be taken that it does not run beyond, or a violent dermatitis may ensue. The strength of the lotion required varies according to the sensitiveness of the skin and the action excited, from five to twenty grains to the ounce of water, or preferably alcohol and water. The weaker lotion should be tried first.

This plan—non-operative—of treatment will, if persisted in, effect considerable improvement and frequently remove the eruption entirely. It is not, however, comparable to that in which scarification plays the principal part. As in the method by puncture, so in this plan a mild ointment or

lotion may be used at the same time, although not essential to the success of the treatment. Each case, in fact, demands special attention, and every peculiarity, its due consideration. If one plan of treatment does not answer, another must be tried. The amount of irritation caused, and the effect produced, must gauge the activity and persistence of the treatment. Positive rules for collective cases cannot be laid down, as each case is a study in itself, and may require some modification in the treatment which would not apply to other patients.

The local management of these cases having been mapped out, the constitutional treatment remains to be considered. It has already been intimated that, although external treatment may remove this as well as all other forms of acne, it will not prevent a relapse, and the cropping up of new lesions. Constitutional treatment is called for, and should, in fact, be instituted as soon as the case comes under observation. A combination of external and internal treatment will frequently effect a permanent cure, or at least so close to it, that only a few evanescent or insignificant lesions appear from time to time. Here again, for a successful result, each case demands special study. Acne is something more than a local affection and depends, in part at least, upon some systemic irregularity or fault. To discern this is not always an easy matter, and yet upon its recognition depends the permanent success of the treatment. Each case should be carefully considered, and every suspected etiological factor thoroughly investigated.

In general it may be stated that there are three great causes of acne: dyspeptic troubles, functional (occasionally organic also) diseases of the sexual apparatus (this cause applicable mainly to females) and scrofulosis. Acne indurata may be provoked by any one of these three, but in the greater number of cases seems to be an expression of a scrofulous diathesis, although other evidences of this condition may not always be present. These patients are either decidedly cachectic in appearance, or are somewhat heavy with flabby flesh and pasty and leaden-looking skin. Such persons are always weak and debilitated, and this fact affords a key to the best plan of constitutional treatment.

Among the tonic remedies indicated, none stand higher than cod-liver oil. If it can be taken and assimilated, it will invariably be of advantage. Iron, preferably the bitter wine of iron, or if well borne the syrup of the iodide, should be prescribed, and also a preparation of malt. These three remedies should be given separately, rather than in combination; the malt during the meal, the iron immediately after eating, and the oil thirty to sixty minutes later. Further on in the treatment, arsenic may be given in small doses, a minim of Fowler's solution in each dose of the wine of iron.

If dyspepsia is the sole discoverable cause, remedies directed toward a



palliation and cure of that condition are to be advised. A good combination, especially if constipation coexists, is one consisting of two fluidrachms each of fluid extract of cascara sagrada and dilute muriatic acid, and two and a half fluidounces of the compound tincture of cinchona; a teaspoonful in a wineglassful of water at meal-time. The cascara sagrada may be increased or lessened according to the effect produced. Even in what may appear as purely dyspeptic cases, after the symptoms of indigestion have abated, cod-liver oil, if well borne, should be advised. So far as my experience goes, there is no single remedy which is so uniformly of advantage in the permanent cure of this form of acne as cod-liver oil. It is not necessary that the dose should be large; beginning with a teaspoonful, it may be rapidly increased to a dessertspoonful, and in some cases to a tablespoonful. It is seldom advisable to exceed a dessertspoonful, as a greater quantity is rarely digested and absorbed, and is more apt to produce nausea and eructations.

Some cases in women are ascribed to menstrual irregularities and uterine diseases, and such really appear to be the operative cause. These conditions are frequently expressions of the same cause which is more or less responsible for the acne. Be this as it may, such irregularities disappear along with the tendency to acne formation as the general health is brought up to par. Tonic remedies, such as already indicated, should be prescribed and continued for a long period.

Finally, it may be added that an indispensable prerequisite of a successful result in the treatment of acne, and especially acne indurata, is a proper regulation of the habits and the diet of the patient. Indiscretions and excesses of all kinds are to be positively interdicted. The diet should be simple and nutritious. Milk may be advantageously substituted for drinking water and taken freely. All indigestible and innutritious substances are to be avoided. Open-air exercise is of advantage, and should always be advised. In short, everything calculated to improve the physical and mental health is of benefit, while that which saps the strength, disturbs the mind, or interferes with the proper performance of the various functions is to be carefully guarded against.

